17471

11819

3 Hours / 100 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

(6) Use of Non-programmable Electronic Pocket Calculator is permissible.

(7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following: **20**

a) Define Metric Count and Denier with formulae.

b) Define twist and write its types with suitable diagram.

c) Describe different types of variations in yarn.

d) Explain crease recovery angle principle.

e) Explain fabric sampling methods with suitable diagram.

f) State the terms water proof and water repellent fabric. Write their end uses.

g) State the terms air permeability and air resistance fabric.

Marks

2. Attempt any TWO of the following: **16**

a) Define English count with formula. Calculate English count of cotton yarn weighing 1.8 kgs and 150000 meter length.

b) Define bending length. Give expression for bending length, flexural rigidity and bending modulus with their units.

c) Explain Hydrostatic water head test with neat diagram.

3. Attempt any TWO of the following: **16**

a) (i) Define cloth cover. Give formulae for warp cover, weft cover and cloth cover factor.

(ii) State the term - crimp in warp and weft.

b) Explain single yarn strength tester with working principle and neat diagram.

c) Define serviceability, wear and abrasion. Give end points of abrasion test.

4. Attempt any TWO of the following: **16**

a) Draw neat diagram of yarn crimp tester and explain it's working.

b) Explain with neat sketch measurement of crease recovery angle.

c) Explain the measurement of tearing strength of fabric with diagram of tearing strength tester.

Marks

5. Attempt any TWO of the following: **16**

a) Explain effect of yarn unevenness on yarn and fabric properties.

b) What is GSM? Calculate GSM of fabric having warp count 60, weft count 60, EPI - 80, PPI - 60 warp and weft crimp 6%.

c) Explain measurement of bursting strength of fabric with suitable diagram.

6. Attempt any TWO of the following: **16**

a) Define Drape and Drape coefficient. Explain measurement of Drape coefficient of fabric.

b) Explain the factors responsible for pilling of fabric.

c) Explain measurement of twist in yarn by twist and untwisting principle.